

2-16-06

IFW \$

Docket No. 7163/SYNX/SYNX/JW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Re: Inventor(s): Michael R. Rice, Robert B. Lowrance, Martin R. Elliott, Jeffrey C. Hudgens and Eric A. Enghardt
Title: METHODS AND APPARATUS FOR TRANSPORTING SUBSTRATE CARRIERS
Serial No.: 10/764,982
Filed: January 26, 2004
Examiner: Deuble, Mark A.
Group Art Unit: 3651

Transmitted herewith is:

- ☒ PTO Form 1449;
☒ Information Disclosure Statement with fifty-one cited references; and
☒ Return Postcard.

FEE CALCULATION

Fee Items	Claims Filed	Included With Basic Fee	Extra Claims	Fee Rate	Total
Total Claims	N/A	- 20 =	-0-	X \$50.00	\$0.00
Independent Claims	N/A	- 3 =	-0-	X \$200.00	\$0.00
Basic Filing Fee (\$300.00), Utility Search Fee (\$500.00), Utility Examination Fee (\$200.00)				\$1000.00	\$0.00
TOTAL FEES					PAID

☒ The Commissioner is hereby authorized to charge \$180.00 to Deposit Account No. 04-1696.

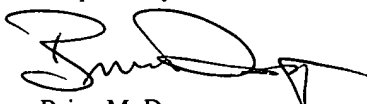
☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 04-1696. A duplicate copy of this transmittal is enclosed.

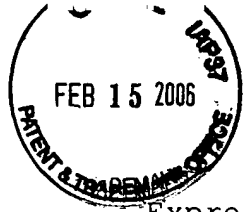
☒ Please address all future correspondence to: **Customer # 41161**
Dugan & Dugan, PC
55 South Broadway
Tarrytown, NY 10591

I hereby certify that this correspondence is being deposited with the United States Postal Service as express mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Express Mail Receipt No. EV605115987USDate of Deposit: 2/15/06Signature: 

Respectfully submitted,


Brian M. Dugan
Registration No. 41,720
(914) 332-9081



Express Mail Label No. EV605115987US

PATENTS
7163/SYNX/SYNX/JW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Michael R. Rice, et al.
Serial No. : 10/764,982
Filed : January 26, 2004
For : METHODS AND APPARATUS FOR TRANSPORTING
SUBSTRATE CARRIERS
Group Art Unit : 3651
Customer No. : 41161

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

02/17/2006 HTECKLU1 00000072 041696 10764982
01 FC:1806 180.00 DA

INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with 37 C.F.R. §§ 1.56 and 1.97,
applicants wish to call the attention of the Examiner to the
following references:

U.S. Patent No. 4,006,813, Rene Fluck
U.S. Patent No. 4,166,527, Earl F. Beezer
U.S. Patent No. 4,222,479, Dugan, et al.
U.S. Patent No. 4,294,344, Johannes D. van Maanen
U.S. Patent No. 4,450,950, James C. Foote, Jr.
U.S. Patent No. 4,538,720, Jean-Louis Limousin

U.S. Patent No. 4,552,261, Raudat, et al.
U.S. Patent No. 4,584,944, Clarence A. Dehne
U.S. Patent No. 4,653,630, Anna Bravin
U.S. Patent No. 4,679,685, Kenji Inoko
U.S. Patent No. 4,702,365, Chong-Il Pak
U.S. Patent No. 4,708,727, Cardenas-Franco, et al.
U.S. Patent No. 4,720,006, Harald Lenherr
U.S. Patent No. 4,750,605, Brems, et al.
U.S. Patent No. 4,852,717, Ross, et al.
U.S. Patent No. 4,901,843, Jeffrey A. Lashyro
U.S. Patent No. 4,921,092, Crawford, et al.
U.S. Patent No. 5,052,544, David L. Anderson
U.S. Patent No. 5,092,450, Schommartz, et al.
U.S. Patent No. 5,123,518, Ernest H. Pfaff
U.S. Patent No. 5,341,915, Cordia, et al.
U.S. Patent No. 5,560,471, Prochut, et al.
U.S. Patent No. 5,653,327, Buday, Jr., et al.
U.S. Patent No. 5,664,254, Ohkura, et al.
U.S. Patent No. 5,782,338, Schuster, et al.
U.S. Patent No. 5,797,249, Thomas Patterson Hartness
U.S. Patent No. 5,829,574, Mario DelSanto
U.S. Patent No. 5,865,292, Aguilar, et al.
U.S. Patent No. 5,887,701, Mario Spatafora
U.S. Patent No. 6,209,710, Mueller, et al.

U.S. Patent No. 6,223,887, Naoyuki Andou

U.S. Patent No. 6,227,346, Lecomte, et al.

U.S. Patent No. 6,227,348, Frei, et al.

U.S. Patent No. 6,234,300, De Vos, et al.

Foreign Art Reference No. JP 02098157 A (Abstract)

Foreign Art Reference No. JP 00062949 A (Abstract)

Foreign Art Reference No. JP 00335799 A (Abstract)

Foreign Art Reference No. WO 97/09256 A1 (Abstract)

Foreign Art Reference No. WO 00/69724 A1 (PCT)

Foreign Art Reference No. EP 0717717 B1 (EPO)

Foreign Art Reference No. EP 00735927 B1 (Abstract)

Foreign Art Reference No. EP 00912426 B1 (Abstract)

Foreign Art Reference No. JP 03132691 A (Japan)

Foreign Art Reference No. JP 2003072835 A (Japan)

Virvalo, T.K., "Cylinder Speed Synchronization", Dec. 1978, Hydraulics and Pneumatics, Vol. 31, No. 12, pages 55-57.

Cheng, et al., "Adaptive Synchronization Control of a Robotic Manipulator Operating in an Intelligent Workcell", April 1990, IEEE Transactions on Industrial Electronics, Vol. 37, No. 2, pages 119-126.

Shih-Hung Li, et al. "An Ultrahigh Speed Assembly Robot System. Part I. Design", 1994, Proceedings 1994 Japan-U.S.A. Symposium on Flexible Automation - A Pacific Rim Conference, Vol. 2, pages 465-72.

Roberts, et al., "Feed Chute Geometry for Minimum Belt Wear", Sept. 1998, 6th International Conference on Bulk Materials Storage, Handling and Transportation, pages 153-159.

Saigo, et al., "Drive Control Systems for Processing Lines", 11/10/2000, Fuji Jiho (Fuji Electric Journal), Vol. 73, No. 11, pages 45-49, Japanese language (Abstract only).

Saigo, K., "Variable-speed Drive Systems for Industrial Plants", 11/10/2000, Fuji Jiho (Fuji Electric Journal), Vol. 73, No. 11, pages 10-14, Japanese language (Abstract only).

Park, et al., "Task Sequence Optimization for a Dual-Robot Assembly System using Evolutionary Algorithms", 2001, Proceedings of the Institution of Mechanical Engineers, Part B (Journal of Engineering Manufacture), Vol. 215, No. B6, pages 835-46.

Please charge deposit account No. 04-1696 in the amount of \$180.00 for consideration of this information disclosure statement under 37 C.F.R. § 1.97(c)(2).

These references are also listed on the accompanying Information Disclosure Statement (Form PTO-1449).


Consideration of the foregoing in relation to this
patent application is respectfully requested.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'Brian M. Dugan', with a stylized flourish extending from the end.

Brian M. Dugan, Esq.
Registration No. 41,720
Dugan & Dugan, PC
Attorneys for Applicants
(914) 332-9081

Dated: 2/15/06
Tarrytown, New York

U.S. Department of Commerce, Patent and Trademark Office <div style="text-align: center;">  LIST OF RELEVANT ART CITED BY APPLICANT (Use several sheets if necessary) </div>				Docket No.: 7163/SYNX/SYNX/JW		Serial No.: 10/764,982	
Applicants: Michael R. Rice, et al.							
Filing Date: January 26, 2004						Group: 3651	

U.S. Patent Documents							
*Examiner Initial	Document Number	Issue Date	Name	Class	Subclass	Filing Date If Appropriate	
	US-1	4,006,813	Rene Fluck				
	US-2	4,166,527	Earl F. Beezer				
	US-3	4,222,479	Dugan, et al.				
	US-4	4,294,344	Johannes D. van Maanen				
	US-5	4,450,950	James C. Foote, Jr.				
	US-6	4,538,720	Jean-Louis Limousin				
	US-7	4,552,261	Raudat, et al.				
	US-8	4,584,944	Clarence A. Dehne				
	US-9	4,653,630	Anna Bravin				
	US-10	4,679,685	Kenji Inoko				
	US-11	4,702,365	Chong-II Pak				

Foreign Patent Documents							Translation	
	Document Number	Date	Country	Class	Subclass	Yes	No	
	F-1	JP 02098157 A	04/10/90	Japan		Abstract		
	F-2	JP 00062949 A	02/29/00	Japan		Abstract		
	F-3	JP 00335799 A	12/05/00	Japan		Abstract		
	F-4	WO 97/09256 A1	03/13/97	PCT		Abstract		
	F-5	WO 00/69724 A1	11/23/00	PCT		X		

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)		
	OT-1	Virvalo, T.K., "Cylinder Speed Synchronization", Dec. 1978, Hydraulics and Pneumatics, Vol. 31, No. 12, pages 55-57.
	OT-2	Cheng, et al., "Adaptive Synchronization Control of a Robotic Manipulator Operating in an Intelligent Workcell", April 1990, IEEE Transactions on Industrial Electronics, Vol. 37, No. 2, pages 119-126.
	OT-3	Shih-Hung Li, et al. "An Ultrahigh Speed Assembly Robot System. Part I. Design", 1994, Proceedings 1994 Japan-U.S.A. Symposium on Flexible Automation - A Pacific Rim Conference, Vol. 2, pages 465-72.

Examiner	Date Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.

U.S. Department of Commerce, Patent and Trademark Office LIST OF RELEVANT ART CITED BY APPLICANT (Use several sheets if necessary)				Docket No.: 7163/SYNX/SYNX/JW		Serial No.: 10/764,982	
				Applicants: Michael R. Rice, et al.			
				Filing Date: January 26, 2004		Group: 3651	

U.S. Patent Documents							
*Examiner Initial	Document Number	Issue Date	Name	Class	Subclass	Filing Date If Appropriate	
	US-12	4,708,727	11/24/87	Cardenas-Franco, et al.			
	US-13	4,720,006	01/19/88	Harald Lenherr			
	US-14	4,750,605	06/14/88	Brems, et al.			
	US-15	4,852,717	08/01/89	Ross, et al.			
	US-16	4,901,843	02/20/90	Jeffrey A. Lashyro			
	US-17	4,921,092	05/01/90	Crawford, et al.			
	US-18	5,052,544	10/01/91	David L. Anderson			
	US-19	5,092,450	03/03/92	Schommartz, et al.			
	US-20	5,123,518	06/23/92	Ernest H. Pfaff			
	US-21	5,341,915	08/30/94	Cordia, et al.			
	US-22	5,560,471	10/01/96	Prochut, et al.			

Foreign Patent Documents							Translation	
	Document Number	Date	Country	Class	Subclass	Yes	No	
	F-6	EP 0717717 B1	07/07/99	EPO		X		
	F-7	EP 00735927 B1	11/03/99	EPO		Abstract		
	F-8	EP 00912426 B1	08/09/00	EPO		Abstract		
	F-9	JP 03132691 A	06/06/91	Japan		X		
	F-10	JP 2003072835 A	03/12/03	Japan		X		

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)	
	OT-4 Roberts, et al., "Feed Chute Geometry for Minimum Belt Wear", Sept. 1998, 6th International Conference on Bulk Materials Storage, Handling and Transportation, pages 153-159.
	OT-5 Saigo, et al., "Drive Control Systems for Processing Lines", 11/10/2000, Fuji Jiho (Fuji Electric Journal), Vol. 73, No. 11, pages 45-49, Japanese language (Abstract only).
	OT-6 Saigo, K., "Variable-speed Drive Systems for Industrial Plants", 11/10/2000, Fuji Jiho (Fuji Electric Journal), Vol. 73, No. 11, pages 10-14, Japanese language (Abstract only).

Examiner	Date Considered
----------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.

U.S. Department of Commerce, Patent and Trademark Office LIST OF RELEVANT ART CITED BY APPLICANT (Use several sheets if necessary)				Docket No.: 7163/SYNX/SYNX/JW		Serial No.: 10/764,982	
				Applicants: Michael R. Rice, et al.			
				Filing Date: January 26, 2004		Group: 3651	

U.S. Patent Documents							
*Examiner Initial	Document Number	Issue Date	Name	Class	Subclass	Filing Date If Appropriate	
	US-23	5,653,327	08/05/97	Buday, Jr., et al.			
	US-24	5,664,254	09/02/97	Ohkura, et al.			
	US-25	5,782,338	07/21/98	Schuster, et al.			
	US-26	5,797,249	08/25/98	Thomas Patterson Hartness			
	US-27	5,829,574	11/03/98	Mario DelSanto			
	US-28	5,865,292	02/02/99	Aguilar, et al.			
	US-29	5,887,701	03/30/99	Mario Spatafora			
	US-30	6,209,710	04/03/01	Mueller, et al.			
	US-31	6,223,887	05/01/01	Naoyuki Andou			
	US-32	6,227,346	05/08/01	Lecomte, et al.			
	US-33	6,227,348	05/08/01	Frei, et al.			

Foreign Patent Documents							Translation	
Document Number	Date	Country	Class	Subclass	Yes	No		
F-11								
F-12								
F-13								
F-14								
F-15								

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)	
OT-7	Park, et al., "Task Sequence Optimization for a Dual-Robot Assembly System using Evolutionary Algorithms", 2001, Proceedings of the Institution of Mechanical Engineers, Part B (Journal of Engineering Manufacture), Vol. 215, No. B6, pages 835-46.
OT-8	
OT-9	

Examiner	Date Considered
----------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.

U.S. Department of Commerce, Patent and Trademark Office LIST OF RELEVANT ART CITED BY APPLICANT (Use several sheets if necessary)				Docket No.: 7163/SYNX/SYNX/JW		Serial No.: 10/764,982	
				Applicants: Michael R. Rice, et al.			
				Filing Date: January 26, 2004		Group: 3651	

U.S. Patent Documents							
*Examiner Initial	Document Number	Issue Date	Name	Class	Subclass	Filing Date If Appropriate	
	US-34	6,234,300	De Vos, et al.				
	US-35						
	US-36						
	US-37						
	US-38						
	US-39						
	US-40						
	US-41						
	US-42						
	US-43						
	US-44						

Foreign Patent Documents							Translation	
	Document Number	Date	Country	Class	Subclass	Yes	No	
	F-16							
	F-17							
	F-18							
	F-19							
	F-20							

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)	
	OT-10
	OT-11
	OT-12

Examiner	Date Considered
----------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.